

Incorporating Climate Change into Landscape Architectural Projects and Practice

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Abstract

Landscape architects in Florida are, and will be, very influential in addressing the impact of climate change on the built and natural environment. The knowledge, attitudes, perceptions, and beliefs of landscape architects about climate change will determine the extent to which they commit to design practices that mitigate climate change impacts such as flooding, temperature and precipitation changes, and salt water intrusion. It is important to understand what landscape architects' perceptions and beliefs are about climate change, to what degree these beliefs influence design practices, and what information and strategies are needed and relevant to landscape architectural practice today, and in the future, to help address the impacts of climate change on the natural and built environment. Using data from a recent survey on attitudes and perceptions of Florida landscape architects toward climate change, this study identifies information gaps, potential strategies, and possible barriers to adoption of landscape design practices that anticipate, and plan for, immediate and future impacts of climate change on the built and natural environment.

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Introduction

The goal of this project is to identify information gaps, potential strategies, and possible barriers to the adoption of landscape design practices that anticipate, and plan for, immediate and future climate change impacts on the natural and built environment using Florida as a study area.

Climate change is already altering the environment. Existing and potential impacts include shifts in precipitation and temperature, sea level rise and more frequent/pronounced flooding, saltwater intrusion, and changes in storm patterns (IPCC 2014). In Florida, documented environmental changes attributed by researchers to climate change include shifts in plant distributions and coastal forest die-offs from saltwater intrusion (*see De Santis et al. 2007 and Williams et al. 2014 for example*). Florida, with its extensive coastlines, low coastal to inland gradients, and porous substrates, is vulnerable to climate change impacts, particularly saltwater intrusion, flooding, and storms.

Florida's landscape architects have a critical role in addressing climate change impacts because their practice involves forming the built environment and managing/creating/restoring natural environments. However, their knowledge, attitudes, perceptions, and beliefs about climate change are important in determining whether they attempt to address climate change impacts in their client interaction, design practice, and project design, and the efficacy of their projects to mitigate its impacts.

Some landscape architecture firms, such as SCAPE, DLANDstudio, and Hargreaves Associates, are involved in projects related to flood management, storm attenuation, sea level rise, and climate change in general. However, many landscape architects need more information about climate change and its relevant local impacts, examples of current climate change mitigation and adaptation projects, and specific methods for integrating climate change mitigation and adaptation strategies into their current design practice.

Therefore, important first questions are 1) to determine landscape architects' current knowledge, attitudes, perceptions, and beliefs about climate change, 2) to identify the extent that those personal factors influence their design practice, and 3) to discover what information is needed and which mitigation and adaptation strategies are relevant to current and future landscape architectural practice. Though others may exist, to date the researchers for this project have found only one survey or poll of landscape architects regarding climate change, which was conducted in June 2017. This was a national poll by *Landscape Architect and Specifier News* (LASN) magazine of its readers regarding their opinions on President Donald

Trump's decision to pull the United States out of the Paris Climate Accord. Readers were asked to provide specific reasons for their positions. LASN found that those in agreement and those opposed to President Trump's decision were split nearly 50/50. However approximately 80% of all respondents cited the need to protect the climate, regardless of their position on the Paris Accord (Landscape Communications, Inc. 2017).

Four issues are being investigated in this project; 1) attitudes and perceptions about climate change among landscape architects in Florida, 2) the degree to which landscape architects believe climate change is relevant to their profession, 3) possible barriers to using landscape design strategies that anticipate climate change, and 4) what, if any, gaps in information exist for the profession, and what potential adjustments to current design and implementation practices are needed to adapt to climate change.

The specific analysis objectives for this study include the following. These will be completed using a combination of existing survey results and literature review.

- 1) Identify attitudes and perceptions about climate change among landscape architects in Florida,
- 2) Identify the degree to which landscape architects in Florida believe climate change is relevant for current and future landscape architectural projects
- 3) Identify possible barriers landscape architects may experience to implementing design practices that respond to climate change (such as client attitude, budget, etc.)
- 4) Identify what gaps in information about climate change exist for landscape architects, particularly information that could inform project scoping, design, or implementation choices.
- 5) Identify any potential adjustments to either current or future project scoping, design, or implementation practices that may help in adaptation to climate change.

Based on the findings from the above research objectives, the following objectives for disseminating and transferring information will be completed:

- 6) Complete at least one publication in an industry trade venue summarizing the results of the work completed in Objectives 1-5
- 7) Complete at least one peer reviewed publication summarizing the results of the work completed in Objectives 1-5
- 8) Create a website to share information about the results of the work completed in Objectives 1-5, as well information about current projects and strategies being employed by landscape architects in all areas of the country and globally to address climate change.

In addition, the following objective related to future research will be completed:

- 9) Identify future research needs related to information gaps and adaptation strategies identified in Objectives 1-3 and vet as appropriate with a focus group of landscape architecture professionals. Completion of this work is contingent on the findings from earlier Objectives (i.e. that future research is necessary).

Final Progress Update

Work completed prior to project start

In November and December of 2016, prior to receiving CLASS funding, the PI and Co-PI administered a descriptive survey of actively registered Florida landscape architects to collect their opinions about whether climate change needs to be addressed in current landscape architectural projects, how climate change impacts could be potentially mitigated and adapted through landscape architectural practice, and what information was needed to assist them in their work. The project team emailed 1,072 actively registered Florida landscape architects an email link to a Survey Monkey survey consisting of an informed consent and 10 questions. The survey had a combination of multiple choice and Likert-type questions, and for most questions, participants had the option of providing written comments. Participants had 30 days to respond to the survey, and the project team sent potential participants a reminder email one week prior to the survey close date. The data collected in this survey is providing the foundation for the work being conducted in this project with CLASS funding. The July 15, 2017 report included the participation request sent to respondents, informed consent, and survey.

Current project objectives

Objectives 1 – 5: Analysis of raw survey data and literature review

Objectives 1 through 5 have been completed, although we will continue research and analysis related to these objectives. During spring 2017, the project team began conducting analysis of the survey results, corresponding with the receipt of CLASS funding. Grounded theory was used to analyze the written comments from the survey results because it allowed identification of themes that arose from the data. During this analysis, written responses were grouped from each question, then the responses were coded using a qualitative data analysis program (Atlas.ti). Codes for each question were aggregated to determine the prevalence of specific attitudes or perceptions. Basic statistics regarding the multiple choice and Likert-type questions were provided by Survey Monkey, and deemed to be sufficient at least for now to meet the analysis needs for this project. Additionally, a detailed literature review was conducted to locate other studies or sources of information related to landscape architecture and climate

change. The July 15, 2017 report included a summary of the Likert-type, multiple choice, and comment survey results.

Objectives 6 – 7: Research dissemination

For Objective 7, a scholarly paper was drafted and accepted for the 2017 International Network of Tropical Architecture (iNTA) conference (<http://inta17.org/>). The intent of this paper is to provide an overall summary of project results for an academic audience (please see July 15, 2017 report for paper submission). In December, 2017 the paper was presented at the iNTA conference, and published in *Nawari, N., Clark, N. (Eds). Tropical Storms as a Setting for Adaptive Development and Architecture: iNTA 2017*, available on Amazon or Kindle (see <https://www.amazon.com/Tropical-Setting-Adaptive-Development-Architecture/dp/1980443513>).

In March, 2018 we presented a paper at the 2018 CELA conference, in the “Transforming the Discussion” track. The talk focused on providing information about the website development process, including how practitioner input from the survey is being incorporated. \$1,500 was awarded from the College of Design Construction and Planning Travel Grant program to assist with travel expenses to the conference. The paper has been published in the conference proceedings and is under consideration for publication in *Landscape Research Record* (see Appendix A for the paper submission). The presentation was well attended, and a number of valuable comments were received from peers at other institutions.

Additionally, in July 2018 a presentation was completed at the Florida Chapter of the American Society of Landscape Architects (FLASLA) conference in Bonita Springs, Florida where information about the project and website were shared. This presentation was well attended, and a number of contacts were made with landscape architects wishing to receive continued updates about the project.

We have also completed a press release that will be included in the upcoming Florida Association of Native Nurseries (FANN) Native Plant & Service Directory along with a link to the site. We will also be providing a press release for inclusion in the upcoming Florida Climate Institute digital newsletter at the end of August. Lastly, we have completed a draft article for *Landscape Architecture Magazine*, which we will be submitting for review after the conclusion of this grant.

Objective 8 – 9: Project website and identification of future research needs

Objective 8, development of a project website has been completed for the purposes of this project. In fall 2017 we decided to host the website through the University of Florida College of Design Construction and Planning (DCP) website (<https://dcp.ufl.edu/>). This means that there are no ongoing hosting fees, that we would use the DCP web template with some modifications, and that we can rely upon DCP technical support. Avoidance of ongoing fees is critical in the absence of continued project funding, since the website needs to continue to exist and be updated after this project is over.

In August, 2018 we shared a beta-version of this website with a shortlist of industry and academic reviewers and received feedback which was used to make minor revisions to the initial draft website. As of the conclusion of this grant, the website will be released to a larger dissemination list, which will include actively registered landscape architects in Florida (ones with active email addresses who did not opt out of communications), the Florida Chapter of the ASLA, industry partners (such as the Florida Association of Native Nurseries), and academic partners. Important in this email release will be the statement that we see this as an initial step towards the effort to build a climate-wise landscape design initiative in Florida; that continued maintenance, updates, and information will be added to the website; and that we anticipate continuing to conduct research in this area to expand the information available to professionals.

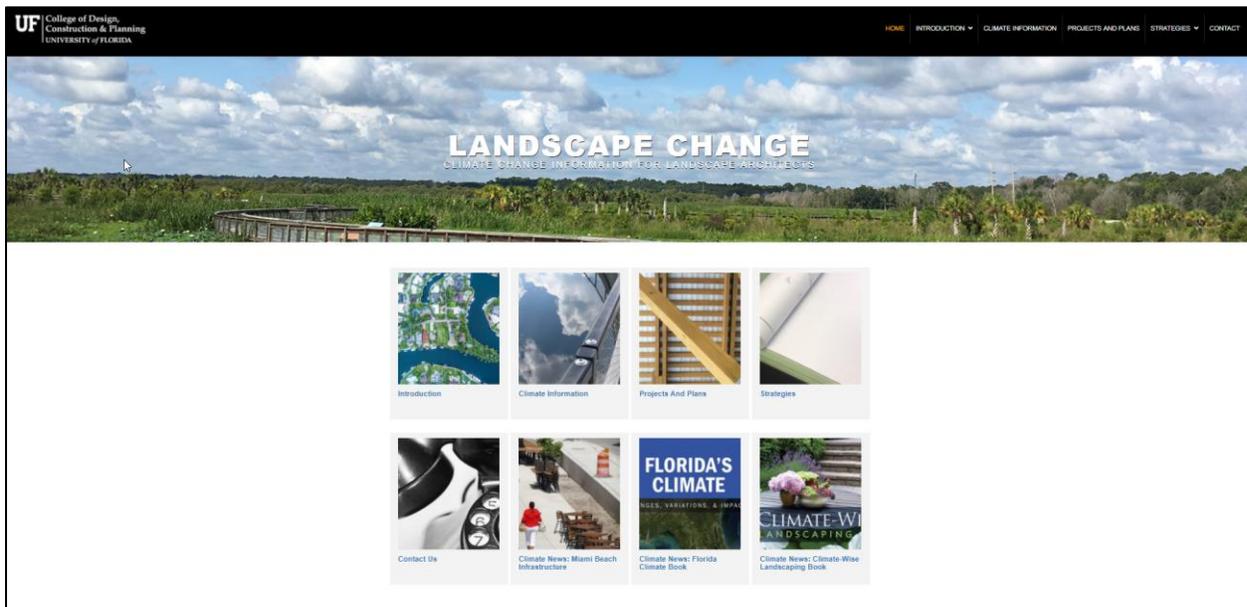


Figure 1. Landscape Change website home page (<https://dcp.ufl.edu/landscapechange/>)

Objective 9 for this project was to identify future research needs. In consultation with members of the team and some industry contacts, we believe there are numerous avenues for future research. Some of these are more immediately feasible for us to pursue, particularly with

additional funding. In particular, we believe there is a need to collect information from growers, landscape design professionals, and other related industry professionals regarding specific actions that they are taking related to climate change and climate-wise design, as well as regarding climate change impacts that they may already be seeing in their region. For example, staff from the Florida Association of Native Nurseries (FANN) have indicated that growers within the State are already making changes to plant inventories in response to changing climate patterns. We need to find ways of collecting this data, as well as similar data from landscape architects regarding changes they may be making to design practices, and as appropriate sharing it to increase communication between growers, designers, and other professionals in the landscape industry. To this end, we have begun discussions about methods for conducting this research and collecting information, including target respondents, use of social media and the existing website as platforms, specific questions we should be asking, and methods of dissemination.

Next Steps

We are very interested in continuing work to develop and expand an initiative focused on climate-wise design and information needs in Florida and beyond. We see the website created as part of this project as only the first step, with continued maintenance and content additions occurring, and updates to our professional network provided via social media and email. This includes the need to find additional funding to support student and faculty information gathering and research. In addition, we are very interested in continuing to develop and fund additional research efforts as described above, including additional collection of crowd-sourced data and efforts to increase communication among growers, landscape designers, and other professionals within the industry.

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Appendix A: Landscape Research Record Paper Submission

CREATING AN INITIATIVE TO MEET CLIMATE CHANGE INFORMATION NEEDS FOR LANDSCAPE ARCHITECTS

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1 ABSTRACT

A recent survey of landscape architects in Florida found that a strong majority of respondents (81%) believe climate change is relevant for current or future landscape architecture projects (Volk et al. in press). However, many landscape architects indicated that they needed more specific information about climate change, and were unsure or divided on specific approaches to address its present and predicted impacts in their projects. Based in part on these results, this paper describes a project currently underway to develop a statewide initiative focused on providing relevant and actionable climate change information to landscape architects in Florida. The immediate and most tangible elements of this include a website and online clearinghouse of information for landscape architects regarding climate change, with the goal of filling information gaps identified in the survey conducted by Volk et al.

To develop this product, the team is analyzing the results of the survey including Likert scale and written comments to identify specific information needs identified by landscape architects, while also conducting a review of relevant literature and various projects which will inform the material to be included on the website. The team is planning to test the beta-version of the website with a focus group of landscape architects and other key users to obtain feedback before the full publically available site is released. This project will fill a critical need identified by landscape architects in Florida by providing a centrally available source for climate change data, research, and the latest information on best practices and strategies for addressing climate change in projects.

This paper summarizes the results of the survey as they relate to climate change information needs identified by landscape architects, provides an overview of the methodology being used to develop the website, challenges and how they are being addressed, and summarizes next steps for releasing and maintaining the website and evaluating success. This information may be useful for other institutions, planners, and organizations seeking to identify and address climate change information needs for landscape architects, and an approach for disseminating information and developing a related web presence for practitioners.

1.1 Keywords

Climate change, survey

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1 ABSTRACT

A recent survey of landscape architects in Florida found that a strong majority of respondents (81%) believe climate change is relevant for current or future landscape architecture projects (Volk et al. in press). However, many landscape architects indicated that they needed more specific information about climate change, and were unsure or divided on specific approaches to address its present and predicted impacts in their projects. Based in part on these results, this paper describes a project currently underway to develop a statewide initiative focused on providing relevant and actionable climate change information to landscape architects in Florida. The immediate and most tangible elements of this include a website and online clearinghouse of information for landscape architects regarding climate change, with the goal of filling information gaps identified in the survey conducted by Volk et al.

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2 INTRODUCTION

Climate change is expected to broadly impact landscapes, coastlines, and plant communities in many places around the world, influencing the design practices that landscape architects employ and projects that they are engaged in. In 2016, a survey of landscape architects in Florida found that 81% believe that climate change will be relevant for current or future landscape architecture projects (Volk et al., in press). However, relevant information for practitioners is limited, and Volk et al. found that many landscape architects indicated they needed more specific information about climate change, and were unsure or divided on specific approaches to address its present and predicted impacts in their projects.

Although an understanding of the relationship between climate change and the field of landscape architecture is still nascent, professional organizations such as the American Society of Landscape Architects (ASLA), Canadian Society of Landscape Architects, and Landscape Institute have begun to publish and disseminate information about the role of landscape architects in addressing climate change (ASLA 2017a, CSLA n.d., Landscape Institute 2008). These describe landscape architects as being uniquely positioned to address climate change through community engagement, and leadership in design, planning, and management of built and natural landscapes. Organizations such as the ASLA, Landscape Architects Network, and others have also begun to outline general mitigation, adaptation, and resiliency strategies that landscape architects may begin to employ (ASLA 2017a, ASLA 2017b, Lucchese 2014). In Florida, professional organizations such as the Florida Chapter of the American Society of Landscape Architects and the Florida Native Plant Society have sponsored conferences and speakers where climate change topics have been discussed. Landscape architecture practitioners are also beginning to discuss adaptation, resiliency, and mitigation (see for example Cardinali et al., Shanley 2016, and Aquino. 2016). Proposed strategies include local sourcing of materials, reduction of greenhouse gases through carbon sequestration in the landscape, reduction of heat island effects, sustainable stormwater infrastructure design, and many more. And a number of firms have begun to propose projects and plans that specifically address climate change. This is happening at the regional and community scale (see for example the Hudson River Rebuild by Design Project by Scape, n.d.) as well as at the site/master planning scale (see for example Treasure Island Community Development, 2016). Academic research is also emerging, including more general information about the impacts of climate change and role of landscape architects in addressing it (Hill and Barnett, 2007), methods of incorporating climate change topics into educational processes (Lenholzer and Brown, 2013), and specific research on particular aspects of climate change related to the profession such as urban heat islands (Brown et al., 2015), and visualization (Sheppard et al., 2008). Horticultural and phenological information from both academic and anecdotal sources is beginning to document changes in spring onset (Monahan et al., 2016), blooming and pollination (Robbirt et al., 2014, Hegland et al., 2009, Ellwood et al., 2013), plant distribution (Williams et al., 2014), and the spread of invasive exotics (Merow et al., 2017). Guidance is also beginning to be provided for home gardeners regarding climate-friendly gardening (Cornell University, 2017).

However in spite of the work that has been done to-date, there is little practical information for landscape architects on exactly how to address climate change in their work including few specific measures that might be undertaken in particular locations, and primarily general guidance at the state and national levels. For example, although we know that climate change will result in changes in precipitation and temperature patterns (Melillo et al., 2014), and may already be affecting plant phenology, it is not clear how this should affect plant choices by landscape architects, or whether this is even an important consideration given the life span of a typical planting design. Questions exist about specific design-related issues, as well as the time-frame and scale at which it is appropriate for landscape architects to begin addressing the issue. A major challenge is that much of the work conducted by landscape architects is site, location, and climate specific. Detailed, yet broadly relevant, guidance is a challenge to provide.

To this end, this paper describes a project currently underway to develop a website and online clearinghouse of information for practitioners regarding climate change, with the goal of taking at least a preliminary step to address information needs identified by landscape architects. To develop this product, the team is analyzing the results of the survey conducted by Volk et al. including Likert scale and written comments that identify specific information needs, while also

conducting a review of relevant literature and various projects which will inform the material to be included on the website. More broadly, this is part of a larger initiative to develop a network of academics, industry professionals, and practitioners, who can assist in providing relevant and actionable climate change information to practitioners, and advance the concept of climate-wise design within the profession.

This paper summarizes the results of the survey as they relate to climate change information needs identified by landscape architects, provides an overview of the methodology being used to develop the website, challenges and how they are being addressed, and summarizes next steps for releasing and maintaining the website and evaluating success. This information may be useful for other institutions, planners, and organizations seeking to identify and address climate change information needs for landscape architects, and an approach for disseminating information and developing a related web presence for practitioners.

3 A SURVEY OF LANDSCAPE ARCHITECTS

The survey conducted by Volk et al. and summarized herein provided the team with data about landscape architects' perceptions of climate change, understanding of specific impacts of climate change, knowledge of potential adaptation strategies, and information needs. The team utilized grounded theory to analyze the results, allowing us to identify themes that appeared or recurred throughout the survey responses. From the survey data, information gaps and needs were identified that could potentially be met by the website.

The survey included 10 multiple choice and Likert scale questions. The Likert scale questions typically asked participants to indicate whether they "Strongly Agree," "Agree," were "Neutral," "Disagree," or "Strongly Disagree" with a given statement. The survey format also allowed participants to enter free response comments. The survey sample was comprised of active registered landscape architects in Florida. An initial sample of 1,072 possible survey participants was identified by collecting licensee information, including email addresses, from the Florida Department of Business and Professional Regulation (DBPR). In November 2016, the team sent an email to participants that introduced the project and a hyperlink to the survey questions hosted on SurveyMonkey. Participants had thirty days to respond, and they received a reminder email one week prior to the survey's close.

Of the original 1,072 emails sent, forty-seven emails were undeliverable. Of the remaining 1,025 recipients, 219 provided informed consent and responded to at least one question (a 21.3% response rate). In addition to responses to the Likert scale questions, we also received 183 unique comments (approximately 20 per question). These written responses were grouped and coded using Atlas.ti, a qualitative data analysis program. We based our initial list of codes on a preliminary reading of the responses as well as the categories of data we were trying to identify more information about (i.e. plant choice, material choice, or stormwater strategies). The list of codes evolved during analysis, and new categories or sub-categories of codes were added as needed. After coding, we aggregated responses to determine the prevalence of the attitudes or perceptions reflected in the written comments.

Of the 10 questions in the survey, Question 4 specifically addressed information needs and asked participants what information is needed for landscape architects to incorporate climate change into landscape architectural projects. The next sections summarize the results from this question, and how they are being considered and addressed.

4 THE INFORMATION THAT LANDSCAPE ARCHITECTS NEED

A strong majority of survey participants in the Volk et al. study agreed that climate change is relevant for landscape projects. As previously noted, 81% agreed that climate change was a relevant concern for both current and future projects, and 12% agreed it was relevant for future projects. Approximately 7% felt climate change was not relevant for current or future projects, and about 1% indicated that they did not know enough about climate change to answer the question.

With specific regard to Question 4, which asked questions related to information needs, participants were asked to indicate their level of agreement to several statements as summarized below in Figure 1. Approximately 41% of participants indicated they did not have sufficient knowledge to make informed and appropriate decisions about climate change in landscape projects,

with an additional 25% expressing a neutral response to the question. More than 82% indicated that general information on climate change was needed, in addition to specific information on the location and depth of sea-level flooding, precipitation and temperature changes, and potential changes in plant hardiness zones. More than 79% indicated that they needed more information on design strategies to address climate change. However, some participants commented that landscape architects should continue to use LEED and other sustainability practices to address climate change. Over 75% agreed landscape architects needed to increase client awareness through public outreach, with two participants commenting that the information needs to be reliable and non-political.

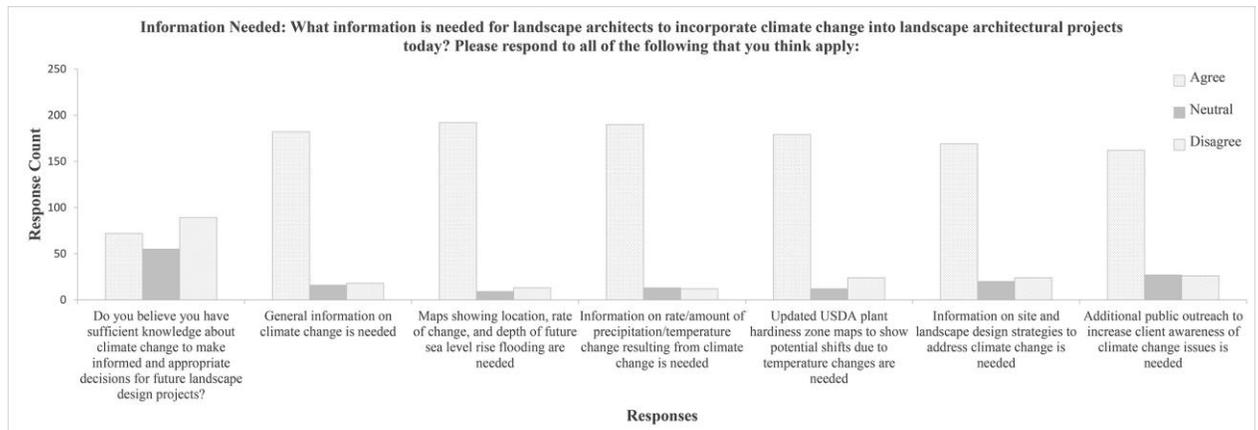


Figure 1. Climate change information needs identified by landscape architects

5 THE CHALLENGES OF PROVIDING RELEVANT CLIMATE CHANGE INFORMATION

These findings confirm the need for relevant data, studies, and projects that can begin to provide the information that practitioners need, as well as an indication of what types of information this includes. The most desired information includes maps showing the location, rate of change, and depth of future sea level rise followed closely by information on the rate of precipitation change and amount of temperature change. Only slightly less important to the participants was general climate change information, updated USDA plant hardiness maps that show plant hardiness zone shifts due to temperature changes, and information on site and design strategies to address climate change.

It is important to consider why landscape architects feel they need additional information, since at least general information on climate change is already readily available from many online and print sources. Questions include why existing information isn't accessed, how to encourage landscape architects to access existing (or newly provided) information, and how to provide the most relevant, objective, and accurate information possible. We don't have the answers to these questions, but hope to get closer to answering them over time.

Information specific to landscape architects, especially detailed science-based data and guidance, is less available than general climate change data. Part of the reason for this may be that information and evidence regarding climate change are still developing, and also that useful information for landscape architects may in many cases need to be very location-specific. Landscape architects work on a variety of projects at a wide range of scales and in locations throughout the world. So at the national or regional scales, only general information can be disseminated given the broad range of project locations and types that landscape architects are involved with. This general information may then be interpreted and applied for project-specific uses.

An additional challenge is providing climate change data that is adequately resolute, such as detailed maps showing the extent and depth of sea level rise in Florida and predicted changes

in precipitation and temperature. Statewide LiDAR-based data is available for Florida that can be used to map potential changes in sea level, but the readily available online mapping options use a cell-based approach that is not precise enough for the site-level grading, drainage, and layout considerations that landscape architects have. The source data for these online sources is typically based on a 5 meter cell size at best.

A third difficulty is providing locally-relevant projects to serve as examples for practitioners wishing to incorporate climate-wise design strategies. While some projects addressing climate change have been designed and built, few of these projects are located in Florida, and many are larger scale planning projects and documents. The majority are international or located outside of Florida. So while these projects can provide some guidance, Florida (or any region) has its own specific opportunities and constraints that limit the applicability of projects from other locations.

6 CREATING A CLIMATE INITIATIVE

With these challenges in mind, the authors of this paper have set out to create an initiative focused on sharing relevant and (to the degree possible) actionable information about climate change with practitioners, particularly those in Florida, and specifically centered around the information needs identified by survey respondents and the research team. This is an ongoing effort as of the writing of this paper. The most tangible part of this effort is a website for sharing climate change information.

Since participants in the Volk et al. survey felt that general climate change information is needed by practitioners, one section of this website will contain links to climate change data and mapping applications that identify areas impacted by sea level rise inundation, temperature, and precipitation changes. To address challenges related to data resolution, we are also going to describe methods for mapping sea level rise inundation based on simple contour and tidal information, which landscape architects can apply at the site scale.

Another section, “Strategies and Resources”, is further subdivided into planting design, stormwater and irrigation, site materials, and site planning topics, which are all topics where participants indicated a need for more information. Pages will have links to articles that discuss various strategies as well as links to other sources or websites that provide relevant information, such as information about the Florida-Friendly Landscaping Program. In these sections, we are not recommending any specific strategy, instead, we are providing both the pros and cons of any given strategy whenever that information is available, as well as information from the Volk et al. survey describing specific feedback from practitioners. In this way we begin to address the specificity issue with existing climate change information by allowing landscape architects to evaluate and determine the most appropriate application of more broad strategies on their own. This isn’t significantly different from what has been done to-date, but it may be the best option pending the availability of additional and more locally specific data (for example on regional changes in horticultural plant distributions and suitability).

An additional section of the website provides examples of climate resilient projects and plans. This section will be subdivided into real-world projects that can serve as examples, and student or contest projects that can provide inspiration. Content is being drawn from the best available literature and project information, and it is the hope of the team that this site will continue to evolve and be added to as new information is found or developed. Prior to public release, the site will be beta-tested with a select group of academic peers, industry partners, and most importantly practicing landscape architects. Following a brief comment and revision period, we will release the website to the public. We will measure the website’s success through public feedback and the number of hits. We are also considering conducting a post-release survey of those who the website is sent to with the goal of obtaining specific feedback that can be used to continue revising the site over time.

To help publicize the website and increase its reach, we are actively engaging and are aiming to cross-link our website with other professional, non-profit, and academic organizations who are involved in the landscape architecture and planning discipline. This is where the broader initiative becomes relevant, which is ultimately to develop a network of people and organizations working with landscape architects in Florida interested in sharing information about climate change and its relevance to the profession. Although we anticipate this will be a long process, it is the long-

term goal of this project to advance climate-wise landscape architectural design within the state and elsewhere – however that may ultimately be defined.

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